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ABSTRACT

Little is known about the roles of the family, kin and non-kin support networks in determining the use of social services by the elderly. An examination of the role of the formal and informal support systems to explain social service utilization by black and white older adults used path analytic procedures to test an explanatory model of utilization for a national area probability sample of 2026 noninstitutionalized older persons. Predisposing variables (race, sex, education, age, morale, marital status), enabling variables (income, population size, access to public transportation, perceived availability, family aid, family contact, informal non-family network), need-for-care variables (perceived need for social services, self-rated health status), and the criterion variable of social welfare service utilization were examined. Need for service was the most important causal variable. One enabling factor, availability, had a direct effect on use. Findings indicated that informal family support was more important for black older adults than white older adults. Family aid was a supplementary rather than an alternative support system. Results suggest that racial and cultural differences must become important factors in the planning, designing, and delivery of social services for the elderly.
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INTERGENERATIONAL FACTORS IN THE UTILIZATION
OF SOCIAL SERVICES BY BLACK AND WHITE ELDERLY:
A CASE ANALYSIS

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INTERGENERATIONAL FACTORS IN THE UTILIZATION
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INTRODUCTION

Gerontological studies of utilization behavior, as major research endeavors, are seldom undertaken. As a result, the use of health and social welfare services by the elderly is a relatively unexplored area of scientific research. Existing knowledge in this area has been derived primarily from a series of descriptive analyses that are of questionable generalizability.

The utilization of health and social services by the elderly has been found, in part, to be influenced by a wide range of socio-demographic factors (Kutner, et al., 1956; Shanas, 1962; Shanas, et al., 1968; McKinlay, 1972; Neugarten, 1974; McCaslin & Calvert, 1975; Downing, 1978). Some studies have found that social and psychological factors also influence use (Coe & Wessen, 1965; Battistella, 1968; Fabrega & Roberts, 1972; Andersen & Newman, 1973; Bennett & Eckman, 1973; Butler & Lewis, 1973; Harris, 1975; Kilty & Feld, 1976; Lowry, 1979; Carrigan, 1977; Riley & Poner, 1968). Other studies indicate that economic, community, organizational and environmental characteristics are directly related to use (Palmore, 1972; Hammerman, 1974; Andersen, et al., 1972; Cutler, 1975; Cantor, 1975; Cantor & Mayer, 1976; Rosow, 1967; Walsh & Elling, 1968; Schwebel et al, 1973; Ward, 1977). Finally, some studies suggest that the perception and awareness of need, the availability of formal and informal support systems, and previous contact with the service delivery system are critical in determining utilization (Lipman & Sterne, 1969; Mechanic, 1962; Gaspard & Hopkins, 1967; German, 1975; Davis & Reynolds, 1974; Cantor & Mayer, 1975; Carrigan, 1977; McKinlay, 1972; Hess & Markson, 1980; Smyer, 1980).

There is also considerable literature on the supportive nature of the Black extended family system. A large number of studies have demonstrated that Black kinsmen help each other including the elderly, with financial aid, advice and other kinds of mutual aid (Aschenbrenner, 1975; Hill, 1975; Martin & Martin, 1978; Shimkin, Shimkin & Prate, 1980; Stack, 1974; Staples, 1976). Several studies have shown that Blacks have a more active and salient kinship network than Whites (Hays & Mindel, 1973; Mindel, 1980). A common hypothesis in research on Black extended families has been that a vital and vigorous extended family system is necessary for survival in an environment that is hostile and restrictive in permitting access to more formal institutional sources of support. It acts as an alternative service and support system.

From a theoretical perspective the aforementioned studies adequately specify, define, and describe the range of variables that

influence the utilization of health and social services by the elderly. However, three important questions appear to have been neglected in previous investigations: (1) what is the relative importance of those variables presumed to influence use when other variables are held constant?; (2) to what extent do the explanatory utilization variables exert a joint influence on usage behavior?; and (3) what is the nature and magnitude of the direct and indirect causal effects of the explanatory variables on utilization? The present study will, in part, address these issues.

CONCEPTUAL FRAMEWORK

The sheer number of variables identified in the utilization literature (Aday & Eichhorn, 1972; McKinlay, 1972; Andersen, et al., 1975) suggests that we should have a functional scheme for categorizing them. One such classificatory system has been proposed by Andersen and his associates (Andersen, 1968; Andersen & Newman, 1973). This model, in part, conceptualizes utilization as the end product of a complex pattern of interactions between predisposing, enabling, and need-for-care factors. It suggests that some individuals have a higher propensity to use services than do others, and that this propensity can be viewed as the outcome of certain background characteristics of the individual. This propensity is associated with such variables as age, race, sex, education, marital status, beliefs and attitudes, etc. These variables represent the predisposing factor in Andersen's behavioral model. Even though individuals may have different propensity levels, the actual use of services will not occur unless the individual has the means for acquiring such services. The means for the acquisition of services is referred to in the model as the enabling factor (i.e., such variables as income, insurance coverage, transportation, service availability and accessibility, etc.) and relate to those conditions which facilitate or impede the utilization of services among persons predisposed to seek them. Finally, assuming that both the predisposing and enabling factors are present, the individual must recognize the presence of a need for care before the use of services actually takes place (Andersen, 1968; Andersen & Newman, 1973). Thus, the utilization of social services by the elderly can be viewed as a three stage causal sequence of predisposing, enabling, and need factors. That is, utilization is a complex process involving a number of causal patterns: enabling factors may be caused by the predisposing factors; the need-for-care factors may be caused by both the predisposing and the enabling factors; the utilization variable may be caused by the predisposing, enabling, and need-for-care factors.

Figure 1 about here

The variables included in this study and a schematic presentation of the basic model of utilization are shown in Figure 1. The predisposing variables include race, sex, education, age, morale, and marital status. The enabling variables include income, population size, access to public transportation, perceived availability, family aid, family contact, and informal non-family support. The need-for-care variables include perceived need for services and self-rated health status. The criterion variable is the utilization of social welfare services.

The model suggests, among other things, that the need-for-care variables are the most important determinants of utilization whereas,

the enabling and predisposing variables take on a less important predictive role. All of the variables included in the model have been found to have direct effects on service utilization (Aday & Eichhorn, 1972; Cantor & Mayer, 1976; McKinlay, 1972; Andersen & Newman, 1973; Andersen, et al., 1975; Riley & Foner, 1968; Shanas, et al., 1968; Ward, 1977).

It will be the purpose of this study to test an explanatory model of social service utilization by the elderly. The results should aid us in assessing: (1) causes for differential utilization behavior among Black and White elderly; (2) the role of informal and formal support systems in determining utilization behavior; (3) the amount of variation in the use of social services which can be explained within the terms of the model; (4) the relative important or priority of the variables included in the explanatory system; and (5) the magnitude of the direct and indirect causal effects of explanatory variables upon this dimension of utilization. The explanatory model focuses on the interrelationships among the causal variables and on the degree to which changes in these variables influence the level of social welfare service utilization.

METHODS

DATA

This study represents a secondary analysis of a data set that was collected in 1968 entitled the National Senior Citizens Survey (Kermit Scholer, principal investigator). The data was provided by the Inter-university Consortium for Political and Social Research at the University of Michigan. The data were gathered from a national area probability sample of 3,996 non-institutionalized individuals age 65 or over. A 154 question interview schedule was administered in face to face interviews with this sample of individuals. In this analysis 2,026 of the 3,996 original interviews will be used (losses are due to missing data). Of this remaining sample 1,738 of the individuals, or 86% of the sample were White and 288 or 14% were Black. The mean age of the sample, both Black and White, was 73.0 years; 40.4% of the respondents were male and 59.6% were female. Forty-five percent of the respondents were married and 55% were either widowed, divorced, separated, or never married.

MEASUREMENT

The variables included in the predisposing factor were measured as follows: race was dichotomized, Blacks being coded 0, Whites coded 1; age was measured by actual age at last birthday; sex was dichotomized with males being coded 1 and females coded 0; morale was measured using the PGC Morale Scale (see Lawton, 1975). This scale consisted of 16 items measuring three dimensions of morale; agitation, attitudes toward aging and lonely dissatisfaction. A high score (maximum = 32) indicated high morale and a low score (minimum = 0) indicated low morale. The Cronbach's alpha reliability coefficient was .84. Education was measured on a scale ranging from 1 through 7; with 1 indicating no education and 7 indicating college graduate. Marital status was dichotomized so that being presently married was coded as 1 and not married coded as 0.

The variables included in the enabling factor were measured in the following manner: income was indicated by the total yearly income as measured in \$2,000 increments. Population size was measured on a measure from 0 to 9 with a zero indicating under 2500 and 9 indicating

1 million or over population. Access to transportation was measured by the response to the question "Can you walk to the bus or other public transportation?" A yes was coded as 1 and no or no transportation available was coded as 0; availability of services was measured by summing the number of services available to the respondents within a reasonable distance of their home. The services included were listed as follows: meals brought to the home, help with housekeeping, help with home repairs, personal or family counseling, someone to stay over night, day time activity center, retirement counseling, employment guidance or advice, someone to drive you places, someone to call or visit you regularly, and a visiting nurse. Availability was measured as the number of services that were available as perceived by the respondent. Family aid was measured by a score of 1 if respondent replied affirmatively to the question "Do you receive any assistance, allowance or gifts from family?", a score of 0 was given for a negative response. Contact with family was measured taking the average frequency of visiting with all children, brothers, sisters, and other relatives that respondent mentioned. Visiting frequency was measured on a scale from 1 to 8 with 8 indicating daily visiting and 1 indicating never visiting. Non-family informal support was measured by an index consisting of four items: (1) "How often do you visit friends in their homes?"; (2) "How often do friends visit you here?"; (3) "How often do neighbors visit you here?"; and (4) "How often do you visit neighbors in their homes?". This scale used the same categories as the contact with family measure. The alpha reliability coefficient for this index was .80.

The variables included in the need for service factor were measured as follows: need was indicated by the number of services mentioned in the list of available services, that the respondent has stated that he or she had needed within the last five years; health was measured by the response to the question, "In general, would you say that your health today is (1) poor, (2) fair, (3) good, or (4) very good?". Social service utilization was measured by summing the number of services out of the 11 mentioned that the respondent had used in the last five years.

METHOD OF ANALYSIS

The method of analysis that is most appropriate and the one that will be employed in this study will be multiple regression within the framework of path analysis. Additionally, separate analyses will be run on the utilization process of White elderly and Black elderly.

Path analysis provides the opportunity to causally order the effects of each of the independent variables that are hypothesized to predict the specified dependent variable (Blalock, 1971; Borgatta, 1969; Nie, et al., 1975). In general, path analysis proceeds by solving a series of nonrecursive regression equations in which each of the previously independent variables becomes the dependent variable in a new equation. The results are then assessed using multiple regression procedures in which the standardized partial regression coefficients are used to measure the impact of each of the independent variables upon the specified criterion variable (Kerlinger & Pedhazur, 1973: 305-311). The standardized partial regression coefficient or path coefficient, represents a measure of change that would take place in the criterion variable, given one unit change in the independent variable. It may be viewed as a direct effect of the independent variable, controlling for the effects of all other variables in the regression equation (Shortell, et al., 1977).

RESULTS

The zero order correlation coefficients for all variables in the study for the total sample is presented below in Table 1. Means and standard deviations for all existing variables are also presented in the table.

Table 1 here

The basic model presented earlier can be transformed into a set of structural equations from which standardized partial regression coefficients, or path coefficients, may be estimated. Within the path analysis framework the total association between an independent variable and a specified dependent variable is estimated through the use of zero order correlation coefficients (i.e., this coefficient may be thought of as the total dependent effect of an explanatory variable upon the relevant criterion variable) (Kerlinger and Pedhazur, 1973). Path analysis acts to decompose this correlation coefficient into a sum of direct effects, hypothesized indirect effects, and unexplained or spurious indirect effects. The direct effect is measured by the value of the path coefficient, i.e., the standardized partial regression coefficient. The hypothesized indirect effects are calculated by multiplying and summing the path coefficients between each of the intervening variables. The unexplained or spurious effects are the difference between the sum of the direct and hypothesized indirect effects and the zero order correlation.

The path diagram (Figure 2) is derived from the basic causal model suggested earlier. In addition, the variables are organized temporally (a requirement for path analysis). The predisposing factor is the most antecedent, followed by the enabling factor, the need factor and finally utilization.

Figure 2 here

An examination of the path diagram indicates that not all of the variables in Table 1 are included in this path diagram, nor are all paths between variables so illustrated. Only those relationships between independent and dependent variables which explained one percent of the variance or more were included as significant paths. (1). Thus, Figure 2 represents a refined path analysis containing only significant causal paths between the various independent and dependent variables. Causal relationships are indicated by the straightlined arrows. Unanalyzed or non-causal relationships between the predisposing (exogenous) variables used in the study are indicated by curved arrows. Table 2 summarizes the direct and indirect causal effects of the explanatory variable that are included in this refined path diagram.

Table 2 here

Results indicate that only two of the variables directly predict the number of services used by this sample of 2,026 elderly. However, these two variables, the number of services needed and the number of

services perceived available, account for 67% of the variance in service utilization. All of the other variables explained insignificant amounts of variance in utilization, thus having no direct effect on use.

The number of services needed was directly affected by six variables; respondents needed more services if they were in poor health, had more services available, did not have access to public transportation, were female, had low morale and received assistance from kin.

The other need factor, health, had an effect on utilization through the number of services needed. Generally, the poorer the older person's health, the greater his or her need for services. Health was directly affected by access to public transportation, income, and morale, that is, poor health was related to lower access to transportation, lower income, and lower morale.

Of the variables included in the enabling factor only the number of services available had a direct effect on use, the other variables in the factor, access to public transportation, income, aid from kin, size of population, only had indirect effects through health and need for service. Several important variables, two of the informal support system variables; family contact, and non-family support, did not have any significant effect on either the need factor or the utilization factor, either directly or indirectly, and were thus dropped out of the path model. This left only availability, access to public transportation, income, and population size as significant enabling factors.

With respect to the variables included in the predisposing factor, none had a direct effect on use. Two variables, level of education and marital status had no significant paths to utilization, either direct or indirect, and were dropped out of the path model. However, race, age, sex, and morale all affected utilization indirectly. Blacks tended to perceive fewer services available, which in turn was related to the number of services needed, which was directly related to the number of services used. Blacks also tended to come from smaller, more rural areas, which also meant fewer services were available but also that access to public transportation was restricted, predicting greater need for service, the best predictor of utilization. In addition, limited access to public transportation predicts poor health, a predictor of greater need for service and greater utilization of services. Race also is related to income, a predictor of health, need and use.

Another predisposing factor, age, was negatively related to income and to access to public transportation both of which predicted poor health and therefore greater need and use of services. Females tended to have lower income, a predictor of poor health and need for services. Being female also had a direct effect on number of services needed, both formally and from family sources, independent of income and health.

Morale had several effects on need and use. Low morale was related to lower income and poor health a predictor of higher number of services needed and used. Low morale was also directly related to number of services needed independent of health and income.

In the analysis of the 2,026 cases it was found that race was a significant predictor, although an indirect one, of social service utilization. Therefore, the sample was divided into Black and White racial groups in order to examine the potentially different utilization patterns of the two races. Figures 3 and 4 provide the two separate path diagrams for the two racial groups and Tables 3 and 4 present the decomposition of effects for the two racial groups.

Figures 3 and 4 about here

Tables 3 and 4 about here

In many respects the patterns predicting social service utilization are quite similar for the two groups. However, there are several important differences which are worth noting and have important implications.

In both groups only two variables are direct predictors or have significant direct effects on social service utilization: number of services needed and number of services available. The percentage of explained variance is similar (65% for the Blacks and 68% for the Whites). It was found, however, that as a predictor of use the number of services perceived available was more important for the Black sample than for the White one with the path from availability to need being .32 for the Blacks and only .19 for the Whites. Additionally, the number of services available appeared to be a more substantial function of population size for Blacks than Whites. Thus, it appears that perceived availability is a more important component in need and use for Blacks than for Whites and that the Black group was more sensitive to potential restrictions in the availability of services than the White group. This finding could reflect a restricted access to service due to discriminatory practices as well as the greater likelihood of finding Black elderly in rural settings.

A major difference between the races appears with respect to the role of the informal family support system. Whereas, for Whites family support appears to be of minor importance, for Blacks it plays a much more pronounced role. Both of the informal family support system variables had significant paths to need for service (the informal non-family support variable was not significant for either racial group). The direction of the relationships however, call into question notions of family support as an alternative support system. First of all, older Black elderly visited and were visited by kin less often than younger (presumably less needy) Black elderly. But perhaps more important Black elderly who tended to receive aid from family were also the ones who needed, and because of the strong path between need and use, used the greatest number of social services. Furthermore those who received family support were more apt to be lower income and female. Rather than serving as an alternative support system the family appears to be providing supplementary aid to those in greatest need.

It appears also that being a Black female is particularly problematic. Black females have substantially less income and for Blacks income is a more powerful predictor of health than for Whites. Health in turn is a predictor of number of services needed. Being a

Black female also means poorer access to public transportation, a relationship that is not found among the White group. (See Jackson, 1980 on "Triple Jeopardy")

Another apparent difference between the Black and White elderly groups is the relationship of age to population size and the more potent effect of population size on service use for the Blacks. More older Black elderly tend to live in smaller sized cities and towns and for that group population size had a stronger effect on number of services available. Age is also more closely related to income for Blacks than for Whites with older Blacks having a lower income than older Whites. Older Blacks are also more restricted in their access to public transportation than older Whites.

The effect of morale on utilization for the Blacks as compared to the Whites was different. Morale appeared to affect health as much for the Blacks as for the Whites but for Blacks it also appears to be a more powerful predictor of need than for the Whites. Furthermore, those elderly with high morale tended to visit with kin to a greater degree than those with low morale. Visiting with kin and informal non-family support do not appear to be significant factors with respect to the White sample.

An examination of Tables 3 and 4 indicates that the model that has been developed to predict utilization of social services for Blacks is a more fully determined one than the one developed for the Whites. Although the model for the Black elderly explains 3% less of the variance in utilization, it explains 20% of the variance in need as compared to only 12% of the variance in need for the White group. In addition 37% of the variation in access to transportation and 26% of the variation in income was explained for the Black sample. This compares to 26% and 7% respectively for the Whites.

DISCUSSION

The conceptual scheme proposed by Anderson and Newman (1973) provided a useful method of analyzing utilization. Regardless of race it was found that the predisposing factors had no direct effect on use but were very important when they were mediated through the enabling and need factors. Need for service was the most important causal variable in the model and it was also the most important intervening variable within the need for care factor. Five predisposing and enabling variables affected use through need, irrespective of race. A single enabling factor, availability, had a direct effect on use and was another important intervening variable for the predisposing variables and the other enabling variables.

The major racial difference in patterns of utilization was found in the more important role of the informal family support system for the Black elderly than for the White group. Literature on Black extended families has long noted the importance of kin as a support system (see for example, Hays & Mindel, 1973 or Shimkin, Louie and Frate, 1973). The findings in this study put the aid system in a somewhat clearer perspective. They suggest that aid to the elderly is not an alternative to aid from institutional sources but rather it is a supplement to seeking help from outside sources. The important difference to be noted however, is that for the White group the extended family support system appears to be absent or at the very least minimal. For the Black group formal and informal sources of aid combine to provide important resources for a particularly needy group.

Other significant racial differences found were the more important effect of age on need and use for the Black elderly, and the greater vulnerability of the female and small town, rural Black elderly who tended more often to be poorer, and older than their White counterparts.

The central purpose of this study was to empirically examine the patterns of interrelationships and the relative priority of factors presumed to influence the utilization of social services by the elderly. Due to cultural differences between Black and White elderly it was assumed that different patterns of social service utilization would emerge. The overall results confirm this expectation. The relative importance and the causal influence of specific predictors of use differ substantially between the two groups. In effect, the findings systematically underscore the heterogeneity of the elderly population rather than its homogeneity relative to service use. This leads us to suggest that in areas of policy formulation, planning, and development of social service programs designed to meet the needs of the elderly, it is imperative that racial and cultural differences become explicit input factors. Utilization behaviors among Black and White elderly, are, without a doubt, affected by different factors.

In the process of doing research on utilization, researchers must employ research designs and statistical techniques that are capable of dealing with a full range of variables in order to investigate a phenomenon as complex as the utilization of social services by the elderly. Although multivariate analysis may not be the most appropriate procedure in all cases, its ability to allow for the simultaneous consideration of a broad range of variables makes it a useful approach in those instances where there is a need to control for the possibility of interactive or spurious relationships. Thus, multivariate procedures can minimize the possibility of misinterpretation of research data.

In the field of social gerontology there has been a minimal effort on the part of researchers to use causal modeling techniques to study utilization processes. The advantage of such techniques is that they give us the opportunity to examine and assess the effects of antecedent causal variables on other variables in the hypothesized explanatory model. As a result these procedures can enhance our understanding of the dynamics involved in the area under investigation. Hence, we feel that the methodological approach employed in this study has substantial utility for further research endeavors in this area.

1. Due to the large sample size it was felt that traditional significance tests either on the beta weight or on the increment of additional explained variance would produce many paths that were statistically significant but rather meaningless. By defining only those paths which explained at least 1% of the variance, a more conservative criterion, only those paths having substantive meaning would likely be included.

REFERENCES

- Aday, L., & Eichhorn, R. THE UTILIZATION OF HEALTH SERVICES: INDICES AND CORRELATES. National Center for Health Services Research and Development.. DHEW Pub. Co (HSM) 73-3003. Washington, D.C.: U.S. Government Printing Office, 1972.
- Andersen, R. A BEHAVIORAL MODEL OF FAMILIES' USE OF HEALTH SERVICES. Research Series No. 25. Chicago: Center for Health Administration Studies, University of Chicago, 1968.
- Andersen, R., McGreeley, R., Kravits, J., & Anderson, O.W. HEALTH SERVICES USE NATIONAL TRENDS AND VARIATIONS, 1953-1971. DHEW Pub. No. (HSM) 73-3004. Washington, D.C.: U.S. Government Printing Office, 1972.
- Andersen, R., & Newman, J. F. Societal and individual determinants of medical care utilization in the United States. MILBANK MEMORIAL FUND QUARTERLY, 1973, 51, 95-124.
- Andersen, R., Kravits, J., & Anderson, O. W. EQUITY IN HEALTH SERVICES: EMPIRICAL ANALYSIS IN SOCIAL POLICY. Cambridge, Mass.: Ballinger Publishing Co., 1975.
- Aschenbrenner, J. LIFELINES: BLACK FAMILIES IN CHICAGO. New York: Holt, Rinehart & Winston, 1975.
- Battistella, R. B. Limitations in use of the concept of psychological readiness to initiate health care. MEDICAL CARE, 1968, 6, 308-319.
- Bennett, R., & Eckman, J. Attitudes toward aging: A critical examination of recent literature and implications for future research. In C. Eisdorfer & M. P. Lawton (Eds.), THE PSYCHOLOGY OF ADULT DEVELOPMENT AND AGING. Washington, D.C.: American Psychological Association, 1973.
- Blalock, H. M., Jr. CAUSAL MODELS IN THE SOCIAL SCIENCES. Chicago: Aldine Publishing Co., 1971.
- Borgatta, E. F. SOCIOLOGICAL METHODOLOGY. San Francisco: Jossey-Bass Pub. Co., 1969.
- Butler, R., & Lewis, M. AGING AND MENATL HEALTH. St. Louis: C. V. Mosby Pub. Co., 1973.
- Cantor, M. Life space and the social support of the inner city elderly of New York. THE GERONTOLOGIST, 1975, 15, 23-26.
- Cantor, M., & Mayer, M. Factors in differential utilization of services by urban elderly. THE GERONTOLOGIST, 1975, 15(5), 97-98.
- Cantor, M., & Mayer, M.. Health and the inner city elderly. THE GERONTOLOGIST, 1976, 16(1), 17-25.
- Carrigan, Z. H. Factors related to the use of resources and decision-making of the elderly. In D. Guttman (Ed.), IMPACT OF NEEDS, KNOWLEDGE, ABILITY, AND LIVING ARRANGEMENTS ON DECISION MAKING OF THE ELDERLY. Final report. AAA Grant # 90-A-522. Washington, D.C., July 1977.
- Coe, R. M., & Wessen, A. F. Social-psychological factors influencing

the use of community health resources. AMERICAN JOURNAL OF PUBLIC HEALTH, 1965, 55, 1024-1031.

Cutler, S. Transportation and changes in life satisfaction. THE GERONTOLOGIST, 1975, 15, 155-159.

Davis, K., & Reynolds, R. Medicare and the utilization of health care services by the elderly. JOURNAL OF HUMAN RESOURCES, 1974, 10, 361-377.

Downing, R. The older person in crisis: An exploratory study of 250 older persons. THE GERONTOLOGIST, 1977, 17 (5), Part II, 28-29.

Fabrega, H., Jr., & Roberts, R. E. Social-psychological correlates of physician use by economically disadvantaged negro urban residents. MEDICAL CARE, 1972, 10, 215-233.

Gaspard, M., & Hopkins, C. E. Determinants of use of ambulatory medical services by an aged population. INQUIRY, 1967, 4, 28-36.

German, P. S. Characteristics and health behavior of the aged population. THE GERONTOLOGIST, 1975, 15, 327-332.

Hammerman, J. Health services: Their success and failure in reaching older adults. AMERICAN JOURNAL OF PUBLIC HEALTH, 1974, 64, 253-256.

Harris, L., & associates. THE MYTH AND REALITY OF AGING IN AMERICA. Washington, D.C.: National Council on Aging, 1975.

Hays, W. C., & Mindel, C. H. Extended kinship relations in Black and White families. JOURNAL OF MARRIAGE AND THE FAMILY, 1973, 35, 51-57.

Hess, B. B., & Markson, E. W. AN INTRODUCTION TO SOCIAL GERONTOLOGY: AGING AND OLD AGE. New York: MacMillan Pub. Co., 1980.

Hill, R. THE STRENGTHS OF BLACK FAMILIES. New York: Emerson-Hall, 1972.

Jackson, J. J. MINORITIES AND AGING. Belmont, Calif.: Wadsworth, 1980.

Kerlinger, F. M., & Pedhazur, E. J. MULTIPLE REGRESSION IN BEHAVIORAL RESEARCH. New York: Holt, Rinehart & Winston, 1973.

Kilty, D., & Feld, A. Attitudes toward aging and toward the needs of older people. JOURNAL OF GERONTOLOGY, 1976, 21, 586-594.

Kutner, B., Franshel, D., Togo, A. M., & Larrger, T. S. FIVE HUNDRED OVER SIXTY. New York: Russell Sage Foundation, 1956.

Lawton, M. P. The Philadelphia geriatric center morale scale: A revision. JOURNAL OF GERONTOLOGY, 1975, 30, 85-89.

Lipman, A., & Sterne, R. Aging in the United States: Ascription of a terminal sick role. SOCIOLOGY AND SOCIAL RESEARCH, 1969, 53, 194-203.

Lowry, L. SOCIAL WORK WITH THE AGING. New York: Harper & Row Pub. Co., 1979.

- Martin, E. P., & Martin, J. THE BLACK EXTENDED FAMILY. Chicago: University of Chicago Press, 1978.
- McCaslin, R., & Calvert, W. R. Social indicators in Black and White: Some ethnic considerations in delivery of service to the elderly. JOURNAL OF GERONTOLOGY, 1975, 30, 60-66.
- McKinlay, J. B. Some approaches and problems in the study of the use of services - An overview. JOURNAL OF HEALTH AND SOCIAL BEHAVIOR, 1972, 13, 369-382.
- Mechanic, D. The concept of illness behavior. JOURNAL OF CHRONIC DISEASES, 1962, 15, 189-94.
- Mindel, C. H. Extended familism among urban Mexican Americans, Anglos, and Blacks. HISPANIC JOURNAL OF BEHAVIORAL SCIENCES, 1980, 2, 21-34.
- Neugarten, B. Age groups in American society and the use of the young - old. In F. Eisele (Ed.), Political consequences of Aging. ANNALS OF AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 1974, 415, 187-198.
- Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES (2nd ed.) New York: McGraw-Hill, 1975.
- Palmore, E. Medical care needs of the aged. POST GRADUATE MEDICINE, 1972, 5, 194-200.
- Riley, M., & Foner, A. AGING AND SOCIETY. Vol. 1: AN INVENTORY OF RESEARCH FINDINGS. New York: Russell Sage Foundation, 1968.
- Rosow, I. SOCIAL INTEGRATION OF THE AGED. New York: Free Press, 1967.
- Schwebel, A., Kershaw, A., Reeve, S., Hartung, J., & Reeve, W. A community organization approach to implementation of comprehensive health planning. AMERICAN JOURNAL OF PUBLIC HEALTH, 1973, 63, 675-680.
- Shanas, E. THE HEALTH OF OLDER PEOPLE: A SOCIAL SURVEY. Cambridge, Mass: Harvard University Press, 1962.
- Shanas, E., Townsend, P., Wedderburn, D., Friis, H., Milhog, P., & Stehouwer, J. OLDER PEOPLE IN THREE INDUSTRIAL SOCIETIES. London: Routledge and Kegan Paul, 1968.
- Shimkin, D. B., Shimkin, E. M., & Frate, D. A. THE EXTENDED FAMILY IN BLACK SOCIETIES. The Hague: Mouton Publishers, 1978.
- Shimkin, D. B., Louie, G. V., & Frate, D. A. THE BLACK EXTENDED FAMILY: A BASIC RURAL INSTITUTION AND A MECHANISM OF URBAN ADAPTATION. Paper presented at the International Congress of Anthropological and Ethnological Sciences, Chicago, 1973.
- Shortell, S. M., Richardson, W. C., Logerfo, J. P., Duhr, P., Weaver, B., & Green, K. E. The relationship among dimensions of health services in two provider systems: A causal model approach. JOURNAL OF HEALTH AND SOCIAL BEHAVIOR, 1977, 18, 139-159.

Smyer, M. A. The differential usage of services by impaired elderly. JOURNAL OF GERONTOLOGY, 1980, 35, 249-255.

Stack, C. ALL OUR KIN. New York: Harper & Row, 1974.

Staples, R. The Black family. In C. Mindel & R. Habenstein (Eds.), ETHNIC FAMILIES IN AMERICA, New York: Elsevier, 1976.

Ward, R. A. Services for older people: An integrated framework for research. JOURNAL OF HEALTH AND SOCIAL BEHAVIOR, 1977, 18, 61-70.

Walsh, J. L., & Elling, R. H. Professionalism and the poor: Structural effects and professional behavior. JOURNAL OF HEALTH AND SOCIAL BEHAVIOR, 1968, 9, 16-28.

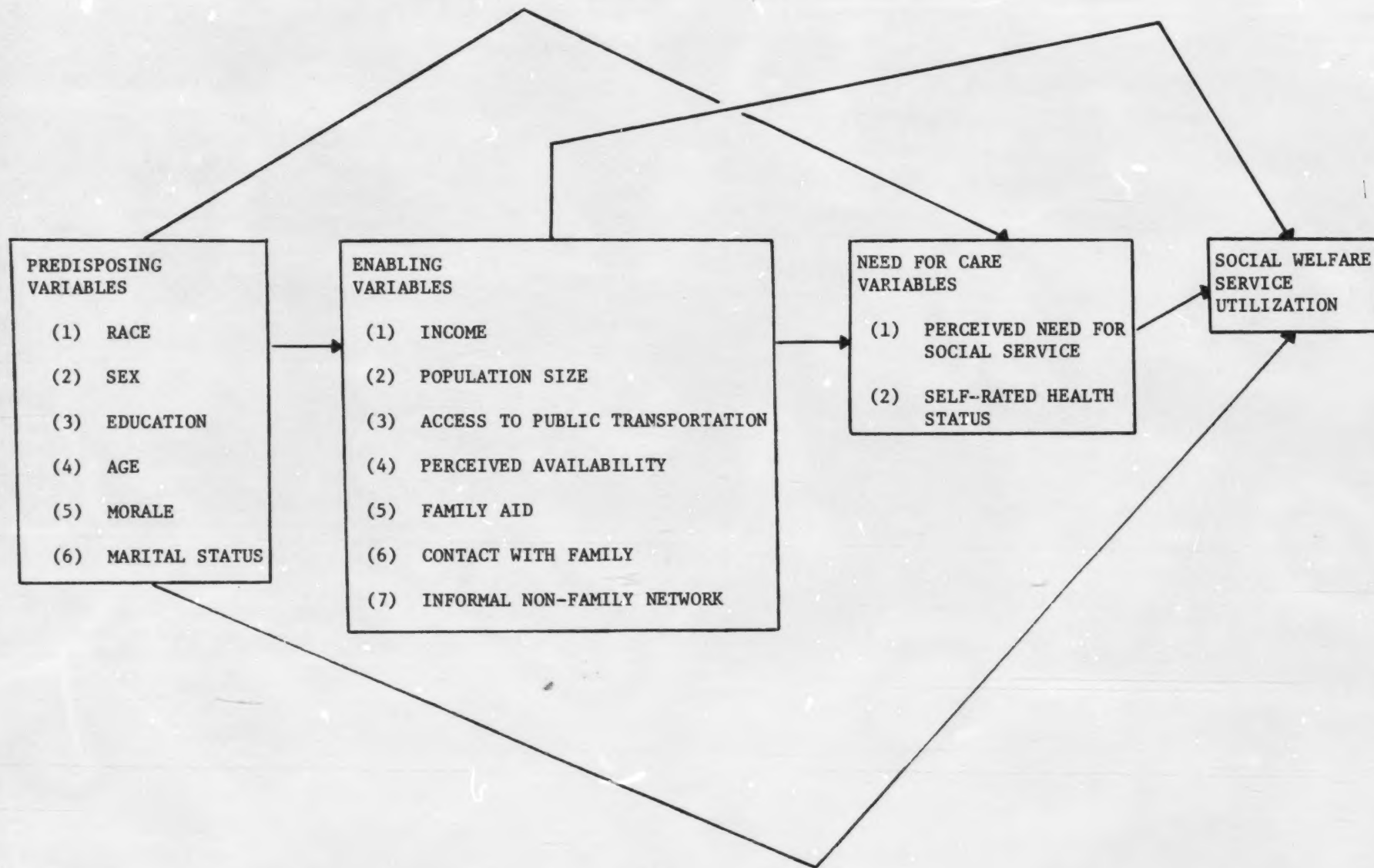


FIGURE 1

Basic Causal Model of Social Welfare Service Utilization

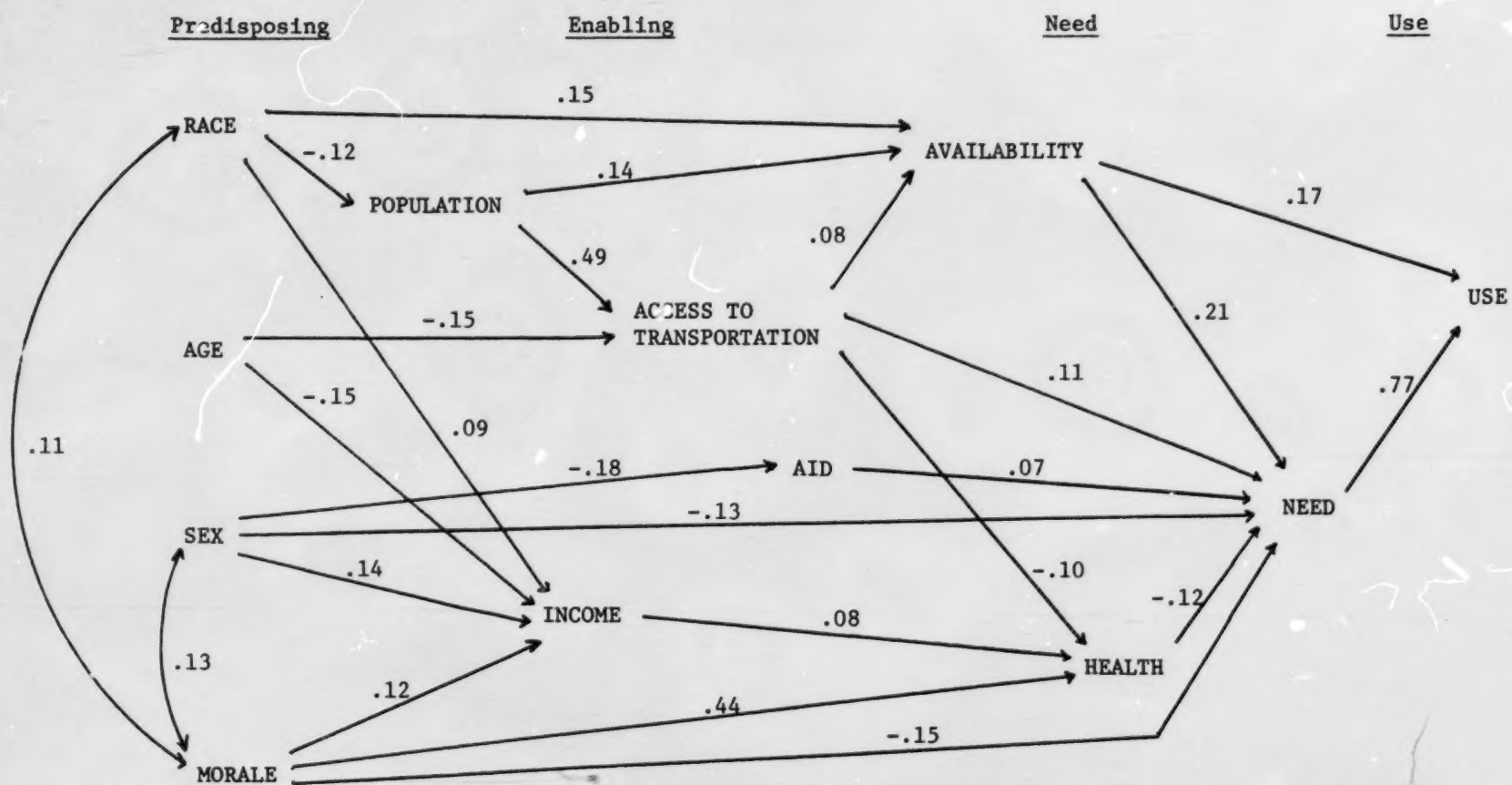


FIGURE 2

Path Diagram Relating Predisposing, Enabling, and Need Factors
to Social Service Utilization for Total Sample (N = 2026)

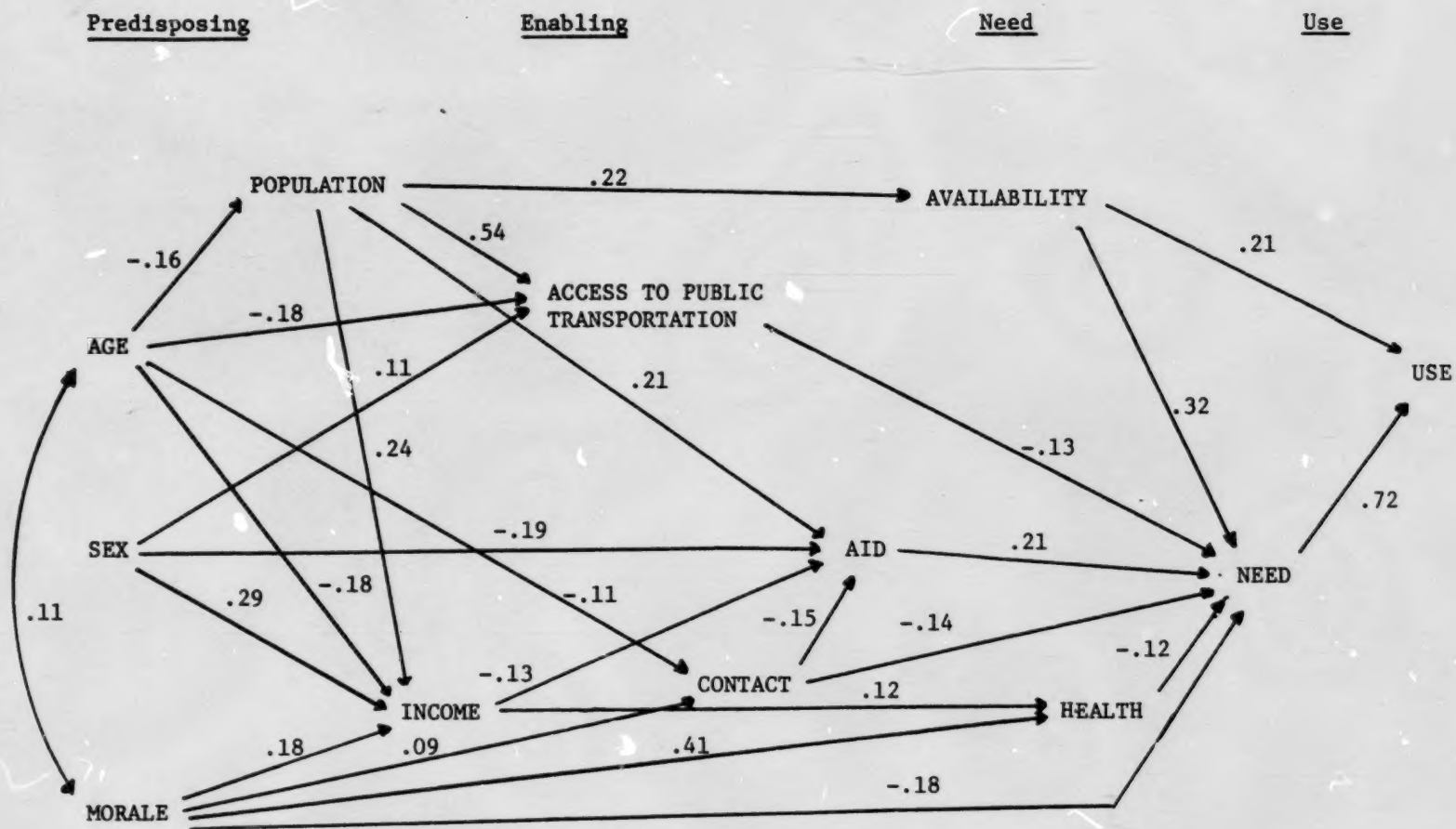


FIGURE 3

Path Diagram Relating Predisposing, Enabling, and Need Factors
To Social Service Utilization for Black Sample (N = 288)

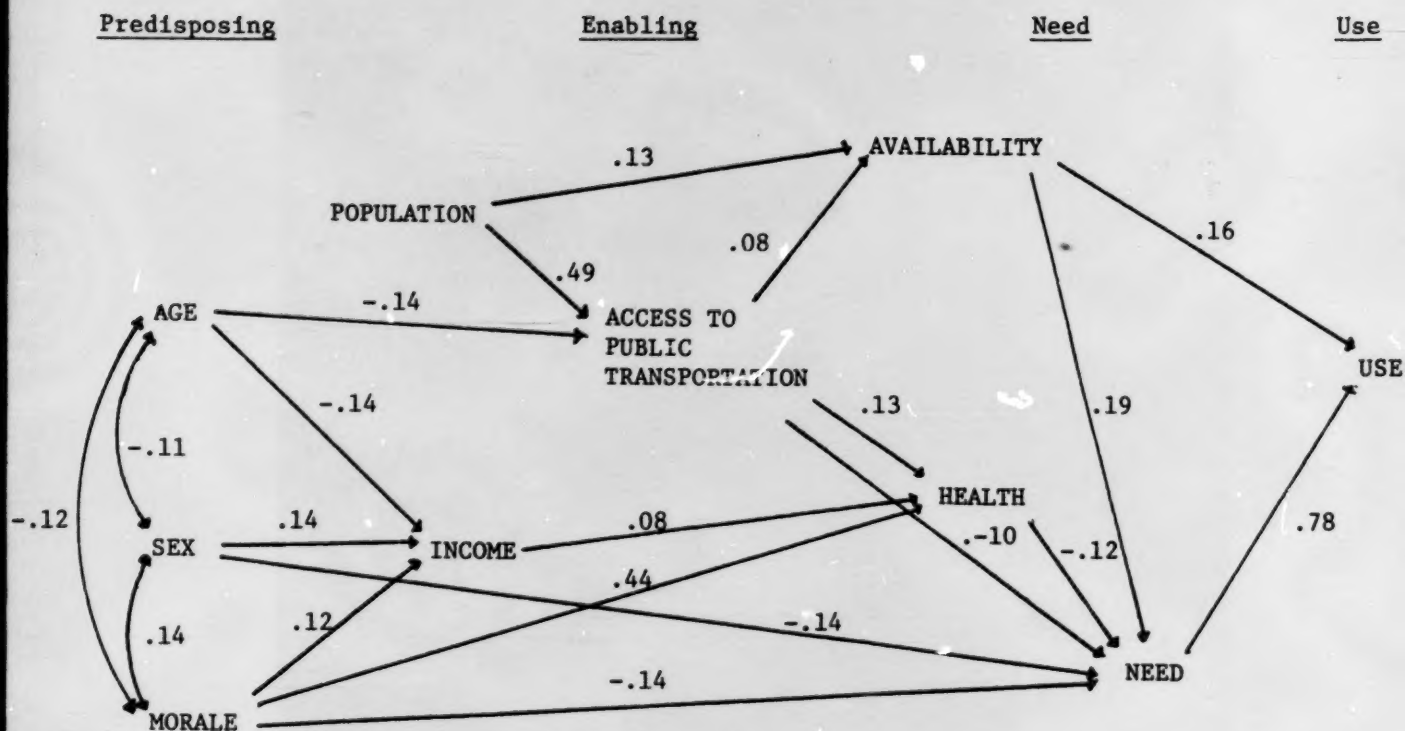


FIGURE 4

Path Diagram Relating Predisposing, Enabling, and Need Factors
To Social Service Utilization for White Sample (N = 1738)

Table 1

Zero Order Correlation Coefficient Matrix, Means and Standard Deviations for All Variables Included in the Study (N = 2026)

Variables	$\bar{X}$	sd	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄	X ₁₅	X ₁₆
X ₁ USE	1.09	1.5																
X ₂ NEED	1.32	1.7	.80															
X ₃ HEALTH	2.44	1.0	-.14	-.20														
X ₄ AVAIL	4.36	3.5	.30	.17	.09													
X ₅ TRANS	.52	.50	-.09	-.13	.20	.15												
X ₆ CONTACT	1.62	1.2	-.03	-.06	.04	.01	.01											
X ₇ AGE	.13	.3	.07	.12	-.06	-.01	-.08	.09										
X ₈ INCOME	2.32	4.2	-.05	-.08	.16	.10	.06	.04	-.09									
X ₉ POP	3.21	3.0	.01	-.01	.04	.16	.49	-.04	.02	.04								
X ₁₀ NON FAM SUP	3.68	1.8	-.07	-.06	-.11	-.06	.01	-.01	.03	.00	.10							
X ₁₁ SEX	.40	.5	-.16	-.16	.05	-.01	.08	-.09	-.19	.17	.02	.04						
X ₁₂ AGE	73.07	6.2	.11	.13	-.10	-.03	-.16	-.13	.12	-.17	-.01	.12	-.09					
X ₁₃ MORALE	21.67	7.5	-.16	-.23	.48	.09	.18	-.00	-.09	.16	.05	-.11	.13	-.12				
X ₁₄ MARSTAT	.44	.5	-.13	-.14	.04	-.02	.02	.02	-.18	.22	-.03	-.03	.42	-.27	.14			
X ₁₅ EDUCATION	3.53	1.9	-.02	-.05	.15	.09	.17	.01	-.03	.19	.17	.04	.01	-.06	.20	.05		
X ₁₆ RACE	.86	.4	.01	-.02	.10	.13	.03	-.09	-.04	.10	-.12	.09	-.02	-.02	.11	.05	.25	

Table 2

Decomposition of Total Association of All
Significant Independent Variables with Dependent
Variables into Direct and Indirect Effects for All Elderly (N = 2026)

Dependent Variable and Coefficient of Determination (R^2)	Explanatory Variables	Total Association (r)	Total Direct Effects ^a	Significant Indirect Effects	Unexplained Indirect Effects
Utilization ($R^2 = .67$)	Need	.80	.77	-	.03
	Availability	.30	.17	.16	-.03
Need ($R^2 = .13$)	Health	-.20	-.12	-	-.08
	Availability	.17	.21	-	-.04
	Transportation	-.13	-.10	-	-.03
	Sex	-.16	-.13	-	-.03
	Morale	-.23	-.15	-.05	-.03
Health ($R^2 = .25$)	Income	.16	.08	-	.08
	Transportation	.20	.11	-	.09
	Morale	.48	.44	.01	.03
Availability ($R^2 = .05$)	Transportation	.15	.08	-	.07
	Population Size	.16	.14	.04	-.02
	Race	.13	.15	-.02	-
Aid ($R^2 = .03$)	Sex	-.18	-.18	-	-
Transportation ($R^2 = .26$)	Population Size	.49	.49	-	-
	Age	-.16	-.15	-	-.01
Income ($R^2 = .08$)	Race	.10	.09	-	.01
	Age	-.17	-.15	-	-.02
	Sex	.17	.14	-	.03
	Morale	.16	.12	-	.04
Population Size ($R^2 = .02$)	Race	-.12	-.12	-	-

^aSignificance was defined as path accounting for 1% or more of variance.

Table 3

Decomposition of Total Association of All
Significant Independent Variables with Dependent Variables
into Direct and Indirect Effects for Black Elderly (N = 289)

Dependent Variable and Coefficient of Determination (R^2)	Explanatory Variables	Total Association (r)	Total Direct Effects ^a	Significant Indirect Effects	Unexplained Indirect Effects
Utilization ($R^2 = .65$)	Need	.78	.72	-	.06
	Availability	.41	.21	.24	-.04
Need ($R^2 = .20$)	Health	-.22	-.13	-	.09
	Availability	.28	.33	-	-.05
	Family Contact	-.12	-.11	-	-.01
	Transportation	-.13	-.12	.03	-.04
	Morale	-.26	-.19	-.07	-
	Aid	.21	.21	-	-
Health ($R^2 = .21$)	Income	.22	.12	-	.10
	Morale	.44	.41	.02	.01
Availability ($R^2 = .07$)	Transportation	.20	.08	-	.12
	Population Size	.26	.22	.04	-
Aid ($R^2 = .11$)	Family Contact	-.15	-.15	-	-
	Income	-.11	-.13	-	.02
	Population Size	.16	.21	-.03	-.02
	Sex	-.21	-.19	-.04	.02
Family Contact ($R^2 = .02$)	Age	-.12	-.11	-	-.01
	Morale	.10	.09	-	.01
Transportation ($R^2 = .37$)	Population Size	.57	.54	-	.03
	Age	-.26	-.18	-.08	-
	Sex	.14	.11	-	.03
Income ($R^2 = .26$)	Population Size	.32	.24	-	.08
	Age	-.24	-.18	-.04	-.02
	Sex	.32	.29	-	.03
	Morale	.26	.18	-	.08
Population Size ($R^2 = .06$)	Age	-.16	-.16	-	-

^aSignificance was defined as path accounting for 1% or more of variance.

Table 4

Decomposition of Total Association of All
Significant Independent Variables with Dependent Variables
into Direct and Indirect Effects for White Elderly (N = 1738)

Dependent Variable and Coefficient of Determination (R^2)	Explanatory Variables	Total Association (r)	Total Direct Effects ^a	Significant Indirect Effects	Unexplained Indirect Effects
Utilization ($R^2 = .68$)	Need	.81	.78	-	.03
	Availability	.28	.16	.15	-.03
Need ($R^2 = .12$)	Health	-.20	-.12	-	-.08
	Availability	.16	.19	-	-.03
	Transportation	-.13	-.10	.02	-.05
	Sex	-.17	-.14	.001	-.03
	Morale	-.22	-.14	-.05	-.03
Health ($R^2 = .25$)	Transportation	.20	.13	-	.07
	Income	.15	.08	-	.07
	Morale	.48	.44	.01	.03
Availability ($R^2 = .03$)	Population Size	.17	.13	.04	-
Transportation ($R^2 = .26$)	Population Size	.48	.49	-	-.01
	Age	-.14	-.14	-	-
Income ($R^2 = .07$)	Age	-.17	-.14	-	-.03
	Sex	.17	.14	-	.03
	Morale	.15	.12	-	.03

^aSignificance was defined as path accounting for 1% or more of variance.